

No.

200100164



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*Grito - Gay North America, Inc.*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

POTATO

'FL 1930'

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifth day of June, in the year two thousand and eight.*

Attest:

*[Signature]*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*[Signature]*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICEAPPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Frito-Lay North America, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME 1993 111.3	3. VARIETY NAME FL 1930
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 7701 Legacy Drive Plano, Texas 75024		5. TELEPHONE (Include area code) 972-334-3822	FOR OFFICIAL USE ONLY PVPO NUMBER 200100164
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation		8. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware	9. DATE OF INCORPORATION 8/8/89
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Robert J. Jondle Jondle & Associates, P.C. 858 Happy Canyon Road, Suit 230 Castle Rock, CO 80108 LMC 11-22-05			FILING AND EXAMINATION FEES: \$ 2705.00 DATE 04/11/01 CERTIFICATION FEE: \$ 768.00 DATE 09/07/01
11. TELEPHONE (Include area code) 202-783-6040	12. FAX (Include area code) 202-783-6031	13. E-MAIL bnewland@rothwellfigg.com	14. CROP KIND (Common Name) Potato
15. GENUS AND SPECIES NAME OF CROP Solanum tuberosum		16. FAMILY NAME (Botanical) Solanaceae	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) \$2705.00 g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2750), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no," go to item 22) 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED 21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE NUMBER 1, 2, 3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES per letter 2-22-07 LMC <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF OWNER Thomas P. Schur		SIGNATURE OF OWNER	
NAME (Please print or type) Thomas P. Schur		NAME (Please print or type)	
CAPACITY OR TITLE Secretary, Recot, Inc.	DATE 02/20/01	CAPACITY OR TITLE	DATE

## INSTRUCTIONS

**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed Exhibits A, B, C, E; (3) at least 2,500 viable untreated seeds, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in a public repository prior to issuance of a certificate; (4) check drawn on a U.S. bank for \$2,450 (\$300 filing fee and \$2,150 examination fee), payable to "Treasurer of the United States" (*See Section 97.175 of the Regulations and Rules of Practice.*) Partial applications will be held in the PVPO for not more than 30 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Blvd., Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self-explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$300 for issuance of the Certificate.

Plant Variety Protection Office  
Telephone: (301) 504-5518

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### ITEM

- 16a. Give:
  - (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
  - (2) the details of subsequent stages of selection and multiplication;
  - (3) evidence of uniformity and stability; and
  - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.
- 16b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences;
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 16c. Exhibit C forms are available from the PVPO for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 16d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 16e. Section 52(4) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. The applicant may be the actual breeder, the employee of the breeder, the owner through purchase or inheritance, etc.
17. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant may NOT reverse this affirmative decision after the variety has been sold and so labelled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (*See P.L. 103-349 for additional information.*)
20. See Sections 41, 42, and 43 of the Act and Section 97.175 of the regulations for eligibility requirements.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment is specified in Section 97.175 of the regulations. (*See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of Regulations and Rules of Practice.*)

To avoid conflict with other variety names in use, the applicant should check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Washington, DC 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB No. 0581-0065), Washington, DC 20503.

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**Date and Place of First Sale of FL 1930**

'FL 1930' was first sold in the United States in December 2000.

2000-12-01

**Exhibit A: Origin and Breeding History of the Variety**

The variety FL 1930 originated in the Frito-Lay Inc. private potato breeding program. In 1991, a cross was made by Robert W. Hoopes at the Frito-Lay Research facility near Rhinelander, Wisconsin between the varieties RD 4-89-18 (later designated FL 1850) and FL 1291. The variety RD 4-89-18 was chosen as a breeding parent because of its excellent chip appearance after long periods in cold storage, its high solids and early maturity and resistance to "golden" cyst nematode, *Globodera rostochiensis* race Ro1. FL 1291 was chosen as a breeding parent because of its high yields and its potential for scab and bruise resistance.

Seeds from the cross RD 4-89-18 x FL 1291 were sown in a greenhouse near Rhinelander in the summer of 1992 and the resulting tubers were harvested in late fall of that year. Seedling tubers were planted in the field in the spring of 1993. One of the selections from this progeny was given the designation "1993 111.1". This selection was tested for four years in the fields near Rhinelander with solids measurements and potato chip fry samples taken after each harvest. 1993 111.1 was found to have consistently uniform round-oval tubers and excellent chip appearance.

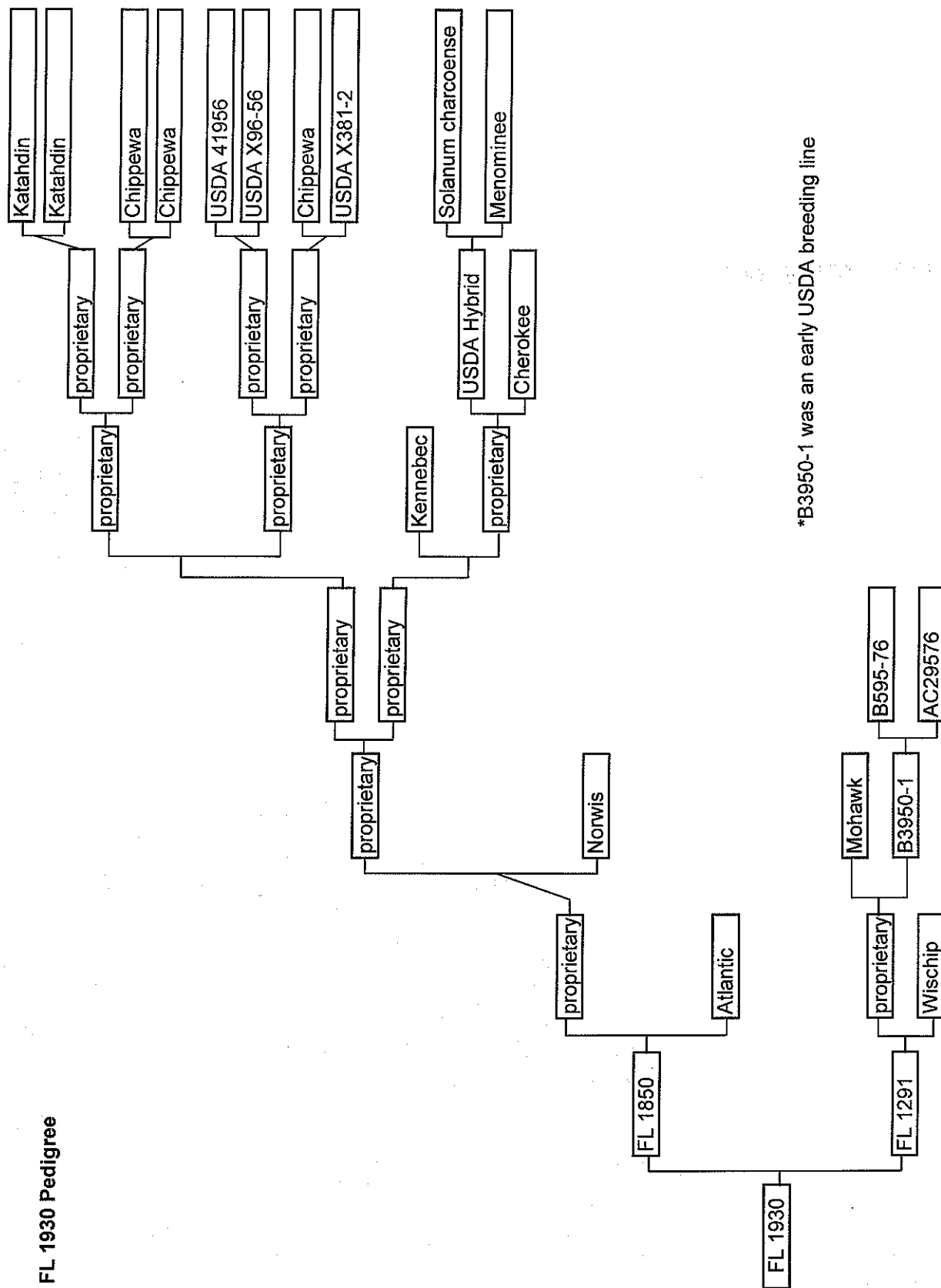
In 1997, 1993 111.1 was given the name "FL 1930" and was tested in nine variety trials conducted by Frito-Lay throughout the United States and in Quebec, Canada. It has been tested in the Advanced Clonal Evaluation Program and is consistently found to have competitive solids, yield equal to or higher than that of Atlantic, very low bruising potential and a beautiful fresh chip appearance. FL 1930 has been tested by Dr. Bill Brodie of Cornell University in Ithaca, New York, and found to be resistant to the "golden" cyst nematode, *Globodera rostochiensis* race Ro1.

FL 1930 was observed for 6 generations in 9 locations and was determined to be genetically uniform and stable from generation to generation with no evidence of variants.

Tissue culture plantlets of FL 1930 were established in 1996 and are maintained at the Frito-Lay Research facility near Rhinelander, Wisconsin, with a duplicate maintained by the Wisconsin Seed Potato Certification Program in Madison, Wisconsin.

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FL 1930 Pedigree



\*B3950-1 was an early USDA breeding line

**Exhibit B: Statement of Distinctness**

As a chipping variety for fresh use, FL 1930 is most similar to Atlantic. FL 1930 can be distinguished from Atlantic in regard to the following traits: The color of the inner and outer surface of the corolla of FL 1930 is darker (RHS 78A) than color of the inner and outer surface of the corolla of Atlantic (RHS 82D). The anthers of FL 1930 are yellow-orange (RHS 17A), while the anthers of Atlantic are yellow (RHS 2A). FL 1930 has a pale yellow tuber flesh color (RHS 160C), while Atlantic has white tuber color (RHS 158B).

The average glycoalkaloid levels of FL 1930 are 4.10 mg/100g fresh tuber, while the average glycoalkaloid levels of Atlantic are 8.02 mg/100g, as documented by two individual tests conducted each by the University of Idaho and the University of Maine (Please see attached table for glycoalkaloid data).

The isozyme pattern of FL 1930, as established by Dr. Dave Douches of Michigan State University, is unique among known North American varieties. This is detailed in Exhibit D, Additional Description of the Variety.

\*Colors were obtained determined using the Royal Horticultural Society colour chart.

### Statistical Data Comparing Glycoalkaloid Levels Between 'FL 1930' and 'Atlantic'

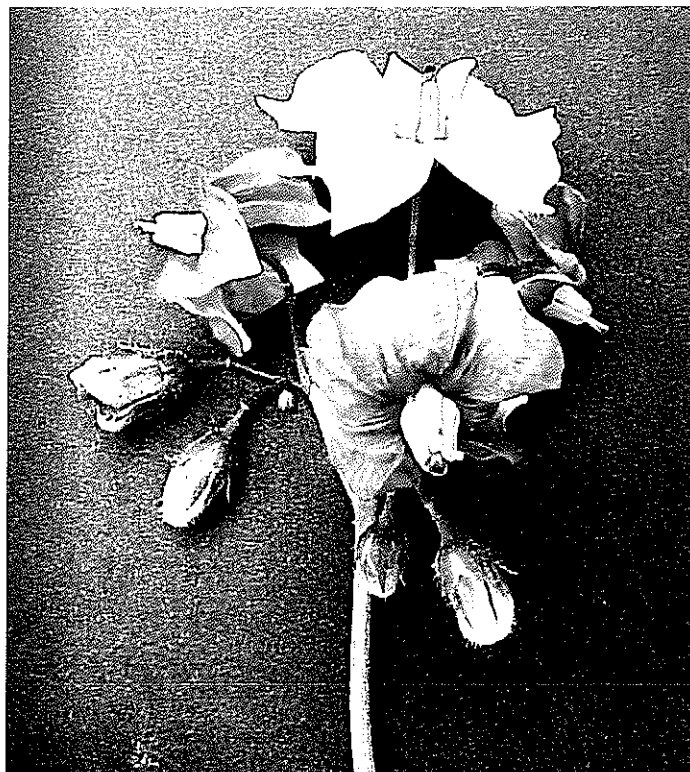
Table 1 below shows data comparing glycoalkaloid levels between potato cultivars 'FL 1930' and 'Atlantic' over a four-year period from 1998-2002. Column one shows the variety name, column two shows the test year, column three shows the OD at 600, column four shows the mg of sample per aliquot, column five shows the total mg per 8g sample, column six shows the average percentage solids for all samples, column seven shows the total mg per 8g of sample times the percentage solids, column eight shows the total glycoalkaloids in mg per 100g of fresh sample for each variety and column nine shows the results of both a one and two tail paired t-test between the average total glycoalkaloid level of 'FL 1930' and 'Atlantic'. Analysis of the total glycoalkaloid levels between 'FL 1930' and 'Atlantic' using a paired t-Test indicate that the levels are significantly different using both a one tail ( $P=0.016$ ) and two tail test ( $P=0.032$ ).

Variety	Test Year	OD @ 600	mg/aliquot	8g sample (total mg/8g)	% Solids	Total mg/8g * %Solids	Total glycoalkaloids (mg/100g fresh)	T-test, paired two sample for means
FL 1930	1998						6.40	One tail: T=2.13, P=0.016  Two tail: T=2.78, P=0.032
	1999	0.177	0.119	1.186		3.290	3.29	
	2000	0.302	0.205	2.054	22.19	6.201	6.20	
	2002	0.122	0.088	0.878		2.419	2.42	
		0.111	0.080	0.799		2.201	2.20	
		AVG: 4.10 ± 0.92						
Atlantic	1998						14.15	
	1999	0.401	0.269	2.687		8.640	8.64	
	2000	0.326	0.222	2.217	25.71	6.868	6.87	
	2002	0.280	0.202	2.016		5.449	5.45	
		0.257	0.185	1.850		5.001	5.00	
		AVG: 8.02 ± 1.66						

\*Note: 1998 and 1999 tests conducted by the University of Maine, while the tests from 2000 and on were conducted by the University of Idaho



**Comparison of the corolla color between 'FL 1930' and 'Atlantic'**

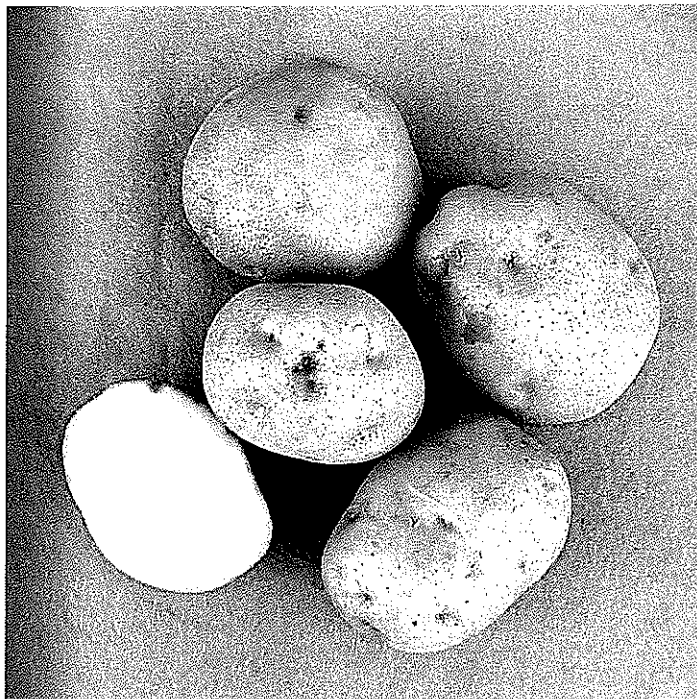


**'FL 1930'**

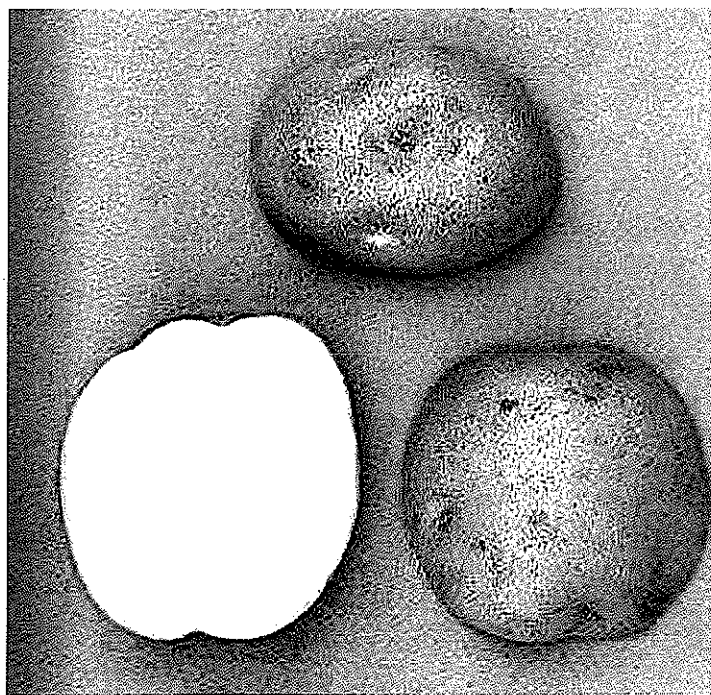


**'Atlantic'**

**Comparison of tuber flesh color between 'FL 1930' and 'Atlantic'**



**'FL 1930'**

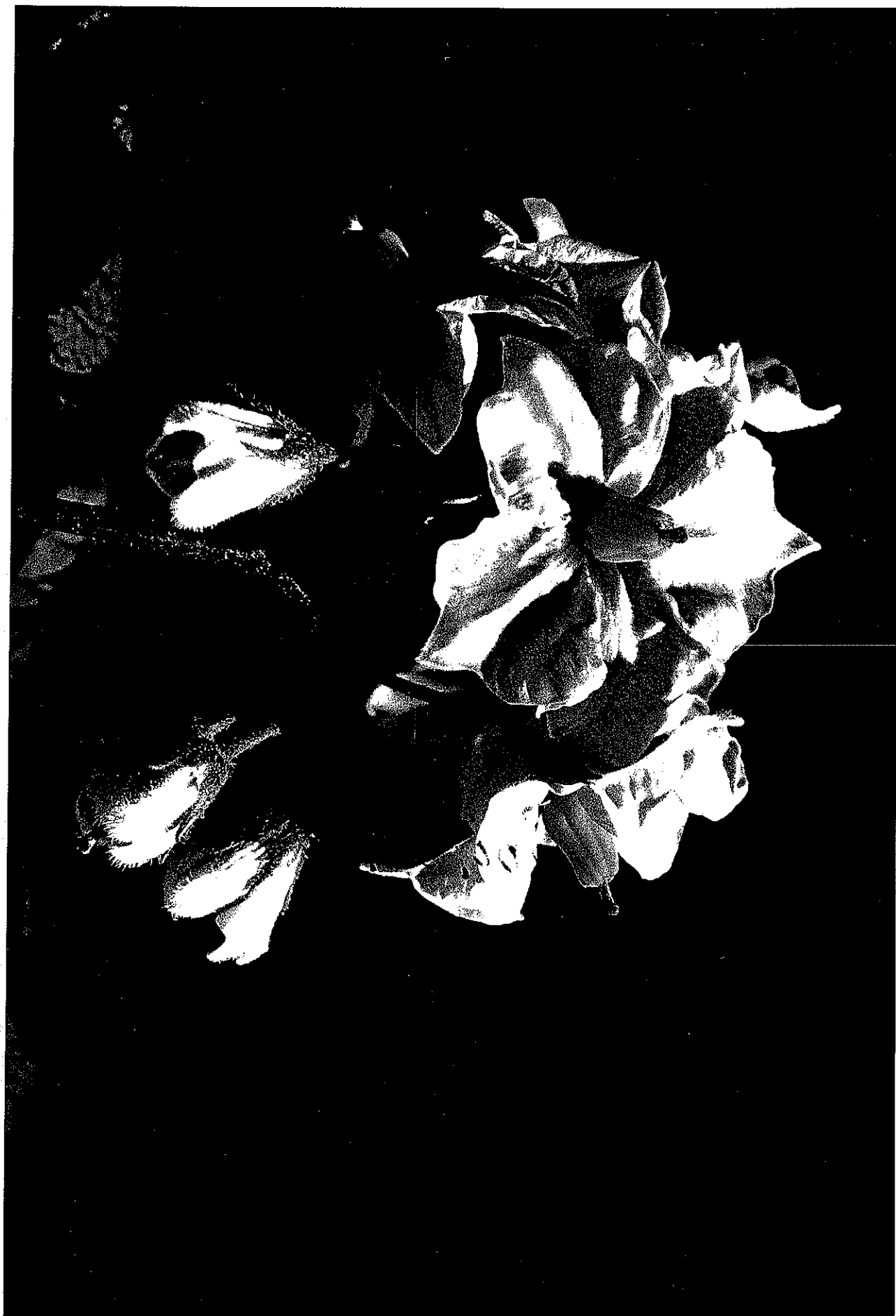


**'Atlantic'**

#200100164

FL1930

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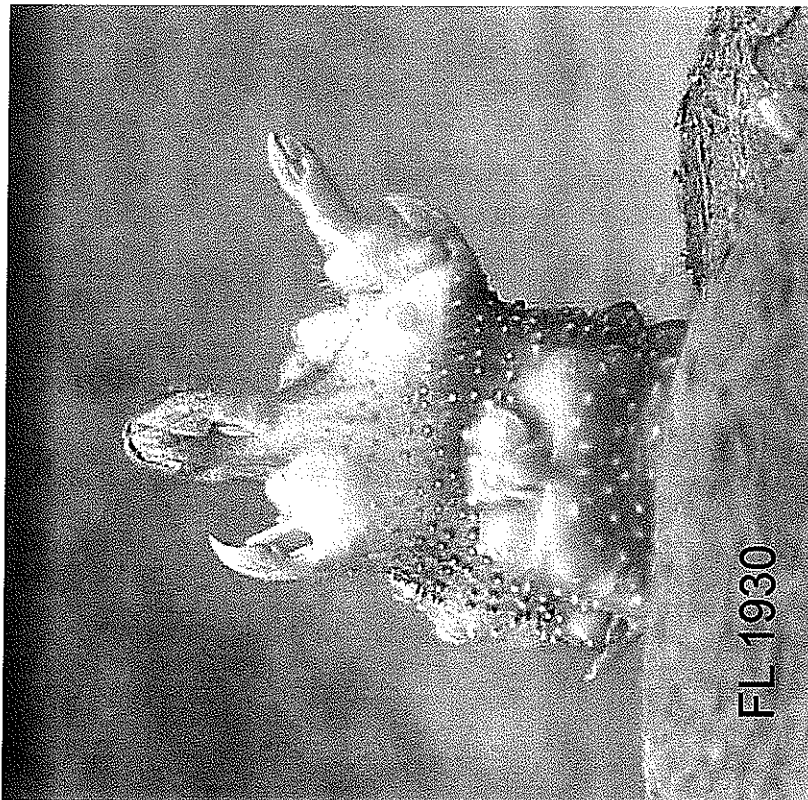
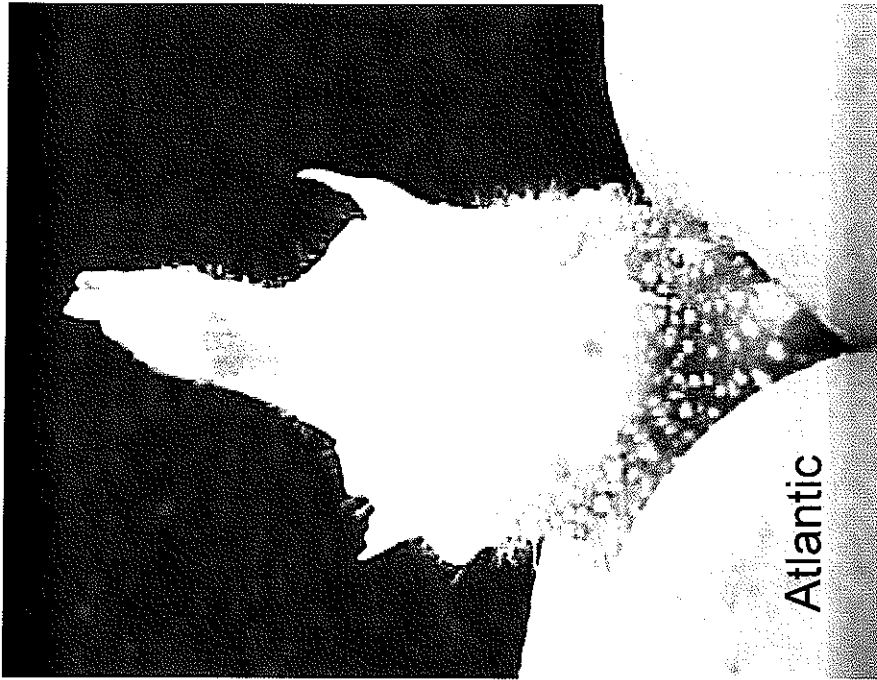


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NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Frito Lay North America, Inc.	1993 111.3	FL 1930
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)		FOR OFFICIAL USE ONLY
7701 Legacy Drive Plano, TX 75024		PVPO NUMBER
		#200100164

REFERENCE VARIETIES: Enter the reference variety name in the appropriate box.

Application Variety (V)	Reference Variety 1 (R1)	Reference Variety 2 (R2)	Reference Variety 3 (R3)	Reference Variety 4 (R4)
FL 1930	Atlantic			

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

## 1. MARKET CHARACTERISTICS:

## \*MARKET CLASS:

1 = Yellow-flesh Tablestock 2 = Round-white Tablestock 3 = Chip-processing 4 = Frozen-processing  
 5 = Russet Tablestock 6 = Other \_\_\_\_\_

V	3	R1	3	R2		R3		R4	
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## 2. LIGHT SPROUT CHARACTERISTICS: (See Figure 1)

## \*LIGHT SPROUT: GENERAL SHAPE

1 = Spherical 2 = Ovoid 3 = Conica 4 = Broad cylindrica 5 = Narrow cylindrical 6 = Other \_\_\_\_\_

V	3/4	R1	3/4	R2		R3		R4	
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## \*LIGHT SPROUT BASE: PUBESCENCE OF TIP

1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	4	R1	7	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

## \*LIGHT SPROUT BASE: ANTHOCYANIN COLORATION

1 = Green 2 = Red-violet 3 = Blue-violet 4 = Other(describe) \_\_\_\_\_

V	2	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

## \*LIGHT SPROUT BASE: INTENSITY OF ANTHOCYANIN COLORATION (IF PRESENT)

1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	5	R1	7	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

## \*LIGHT SPROUT TIP: HABIT

1 = Closed 2 = Intermediate 3 = Open

V	1	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**2. LIGHT SPROUT CHARACTERISTICS: (continued)****LIGHT SPROUT TIP: PUBESCENCE**

1 = Absent    2 = Weak    3 = Medium    4 = Strong    5 = Very Strong

V	2	R1	4	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**LIGHT SPROUT TIP ANTHOCYANIN COLORATION**

1 = Green    2 = Red-violet    3 = Blue-violet    4 = Other(describe) \_\_\_\_\_

V	2	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**LIGHT SPROUT TIP: INTENSITY OF ANTHOCYANIN COLORATION (IF PRESENT)**

1 = Absent    2 = Weak    3 = Medium    4 = Strong    5 = Very Strong

V	3	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**LIGHT SPROUT ROOT INITIALS: FREQUENCY**

1 = Short    2 = Medium    3 = Long

V	2	R1	1/2	R2		R3		R4	
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**3. PLANT CHARACTERISTICS:****GROWTH HABIT: (See Figure 2)**

3 = Erect (&gt;45° with ground)    5 = Semi-erect (30-45° with ground)    7 = Spreading

V		R1		R2		R3		R4	
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**TYPE:**

1 = Stem (foliage open, stems clearly visible)    2 = Intermediate    3 = Leaf (Foliage closed, stems hardly visible)

V		R1		R2		R3		R4	
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**MATURITY: Days after planting (DAP) at vine senescence**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**PLANTING DATE:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**\*REGIONAL AREA:**

1 = Pacific North West (WA, OR, ID, CO, CA)    2 = North Central (ND, WI, MI, MN, OH)    3 = North East (ME, NY, PA, NJ, MD, MA, RI, CT)  
 4 = Mid-Atlantic East (VI, NC, SC, South NJ, FL)    5 = South (LA, TX, AZ, NE)    6 = Canada  
 7 = Europe    8 = England    9 = Latin America    10 = Brazil    11 = Other \_\_\_\_\_

V		R1		R2		R3		R4	
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**MATURITY CLASS:**

1 = Very Early (&lt;100 DAP)    2 = Early (100-110 DAP)    3 = Mid-season (111-120 DAP)    4 = Late (121-130 DAP)    5 = Very Late (&gt;130 DAP).

V		R1		R2		R3		R4	
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<b>NAME OF APPLICANT(S)</b> Frito-Lay North America, Inc.	<b>FOR OFFICIAL USE ONLY</b> <b>PVPO NUMBER</b> 200100164
<b>ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)</b> 5000 Highway 1 Drive 7701 Legacy Drive Plano, Texas 75024	<b>VARIETY (V) NAME</b> FL 1930  <b>TEMPORARY OR EXPERIMENTAL DESIGNATION</b> 1993 111.3

**REFERENCE VARIETIES: Enter the reference variety name in the appropriate box**

Reference Variety 1 (R1)	Reference Variety 2 (R2)	Reference Variety 3 (R3)	Reference Variety 4 (R4)
Atlantic			

**1. MARKET CHARACTERISTICS:**
**MARKET CLASS:**

1 = Yellow-flesh tablestock; 2 = Round-white tablestock; 3 = Chip-processing; 4 = Frozen-processing;  
 5 = Russet tablestock; 6 = Other \_\_\_\_\_

V	3	R1	3	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**2. PLANT CHARACTERISTICS:**
**GROWTH HABIT: (See figure 1)**

3 = Erect (>45° with ground); 5 = Semi-erect (30-45° with ground); 7 = Spreading.

V	5	R1	5	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**TYPE:**

1 = Stem (foliage open, stems clearly visible); 2 = Intermediate; 3 = Leaf (Foliage closed, stems hardly visible)

V	2	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**MATURITY: Days after planting (DAP) at vine senescence**

V	110	R1	115	R2		R3		R4	
---	-----	----	-----	----	--	----	--	----	--

**PLANTING DATE:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**REGION/AREA:**

V	Indiana	R1	Indiana	R2		R3		R4	
---	---------	----	---------	----	--	----	--	----	--

**MATURITY CLASS:**

1 = Very Early (<100 DAP); 2 = Early (100-110 DAP); 3 = Mid-season (111-120 DAP); 4 = Late (121-130 DAP);  
5 = Very Late (>130 DAP).

V	2
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R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**3. STEM CHARACTERISTICS:** *Measure at early first bloom*\* **STEM ANTHOCYANIN COLORATION:**

1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**STEM WINGS:** *(See figure 12)*

1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	5
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R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**4. LEAF CHARACTERISTICS:****LEAF COLOR:** *(Observe fully developed leaves located on middle  $\frac{1}{3}$  of plant)*

1 = Yellowish-green; 2 = Olive-green; 3 = Medium green; 4 = Dark green; 5 = Grey-green; 6 = Other \_\_\_\_\_

V	2
---	---

R1	2
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**LEAF COLOR CHART VALUE:** *Royal Horticulture Society Color Chart or Munsell Color Chart  
(Observe fully developed leaves located on middle  $\frac{1}{3}$  of plant & circle the appropriate color chart)*

V	137A
---	------

R1	137A
----	------

R2	
----	--

R3	
----	--

R4	
----	--

**LEAF PUBESCENCE DENSITY:**

1 = Absent; 2 = Sparse; 3 = Medium; 4 = Thick; 5 = Heavy

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**LEAF PUBESCENCE LENGTH:**

1 = None; 2 = Short; 3 = Medium; 4 = Long; 5 = Very long

V	3
---	---

R1	4
----	---

R2	
----	--

R3	
----	--

R4	
----	--

*(Note: Descriptor #19 can be used to describe the type and length of the glandular trichomes observed.)*

\* **LEAF SILHOUETTE:** *(See figure 2)*

1 = Closed; 3 = Medium; 5 = Open

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**PETIOLES ANTHOCYANIN COLORATION:**

1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**LEAF STIPULES SIZE:** (See figure 13)

1 = Absent; 3 = Small; 5 = Medium; 7 = Large

V	3-5
---	-----

R1	5
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**TERMINAL LEAFLET SHAPE:** (See figure 3 & 11)1 = Narrowly ovate; 2 = Medium ovate; 3 = Broadly ovate; 4 = Lanceolate; 5 = Elliptical;  
6 = Obovate; 7 = Oblong; 8 = Other

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**TERMINAL LEAFLET TIP SHAPE:** (See figure 4 & 11)

1 = Acute; 2 = Cuspidate; 3 = Acuminate; 4 = Obtuse; 5 = Other

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

\*

**TERMINAL LEAFLET BASE SHAPE:** (See figure 5 & 11)

1 = Cuneate; 2 = Acute; 3 = Obtuse; 4 = Cordate; 5 = Truncate; 6 = Lobed; 7 = Other

V	4
---	---

R1	4
----	---

R2	
----	--

R3	
----	--

R4	
----	--

\*

**TERMINAL LEAFLET MARGIN WAVINESS:**

1 = Absent; 2 = Slight; 3 = Weak; 4 = Medium; 5 = Strong

V	2
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**NUMBER OF PRIMARY LEAFLET PAIRS:** (See figure 11)**AVERAGE:**

V	4
---	---

R1	4
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**RANGE:**

V	3	to	5
---	---	----	---

R1	4	to	4
----	---	----	---

R2		to	
----	--	----	--

R3		to	
----	--	----	--

R4		to	
----	--	----	--

**PRIMARY LEAFLET TIP SHAPE:** (See figure 4 & 11)

1 = Acute; 2 = Cuspidate; 3 = Acuminate; 4 = Obtuse; 5 = Other

V	3
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

\* **PRIMARY LEAFLET SIZE:**

1 = Very Small; 2 = Small; 3 = Medium; 4 = Large; 5 = Very Large

V	4	R1	4	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**PRIMARY LEAFLET SHAPE:** (See figure 3 & 11)

1 = Narrowly ovate; 2 = Medium ovate; 3 = Broadly ovate; 4 = Lanceolate; 5 = Elliptical;  
6 = Obovate; 7 = Oblong; 8 = Other

V	2	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**PRIMARY LEAFLET BASE SHAPE:** (See figure 5 & 11)

1 = Cuncate; 2 = Acute; 3 = Obtuse; 4 = Cordate; 5 = Truncate; 6 = Lobed; 7 = Other

V	4	R1	4	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**NUMBER OF SECONDARY AND TERTIARY LEAFLET PAIRS:** (See figure 11)

**AVERAGE:**

V	4	R1	5	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**RANGE:**

V	3 to 6	R1	4 to 7	R2	to	R3	to	R4	to
---	--------	----	--------	----	----	----	----	----	----

**5. INFLORESCENCE CHARACTERISTICS:**

**NUMBER OF INFLORESCENCE / PLANT:**

**AVERAGE:**

V	8	R1	4	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**RANGE:**

V	8 to 9	R1	3 to 6	R2	to	R3	to	R4	to
---	--------	----	--------	----	----	----	----	----	----

**NUMBER OF FLORETS / INFLORESCENCE:**

**AVERAGE:**

V	11	R1	11	R2		R3		R4	
---	----	----	----	----	--	----	--	----	--

**RANGE:**

V	10 to 12	R1	8 to 16	R2	to	R3	to	R4	to
---	----------	----	---------	----	----	----	----	----	----

\* **COROLLA INNER SURFACE COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart  
(Measure predominant color of newly open flower & circle the appropriate color chart)

V	78A	R1	82A	R2		R3		R4	
---	-----	----	-----	----	--	----	--	----	--

\* COROLLA OUTER SURFACE COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart  
(Measure predominant color of newly open flower & circle the appropriate color chart)

V	78D	R1	82D	R2		R3		R4	
---	-----	----	-----	----	--	----	--	----	--


**COROLLA INNER SURFACE COLOR:** (Measure predominant color of newly open flower)

 1 = White; 2 = Red-violet; 3 = Blue-violet; 4 = Other V = Purple, R1 = Purple Violet

V	4	R1	4	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**COROLLA SHAPE:** (See figure 6)

1 = Very rotate; 2 = Rotate; 3 = Pentagonal; 4 = Semi-stellate; 5 = Stellate

V	2	R1	4	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**CALYX ANTHOCYANIN COLORATION:**

1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very strong

V	1	R1	1	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**ANTHER COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart

(Measure when newly opened flower is fully expanded and circle the appropriate color chart)

V	17A	R1	2A	R2		R3		R4	
---	-----	----	----	----	--	----	--	----	--

**ANTHER SHAPE:** (See figure 7)

1 = Broad cone; 2 = Narrow cone; 3 = Pear shape cone; 4 = Loose; 5 = Other \_\_\_\_\_

V	3	R1	3	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**POLLEN PRODUCTION:**

1 = None; 3 = Some; 5 = Abundant

V	2	R1	3	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

The Variety has low fertility.

**STIGMA SHAPE:** (See figure 8)

1 = Capitata; 2 = Clavate; 3 = Bi-lobed

V	1	R1	1	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**STIGMA COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart

(Circle the appropriate color chart)

V	137A	R1	137A	R2		R3		R4	
---	------	----	------	----	--	----	--	----	--

**BERRY PRODUCTION:** (Under field conditions)

1 = None; 3 = Low; 5 = Moderate; 7 = Heavy; 9 = Very heavy

V	2	R1	5	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--



**5. TUBER CHARACTERISTICS:**

\*

**PREDOMINANT SKIN COLOR:**

1 = White; 2 = Light Yellow; 3 = Yellow; 4 = Buff; 5 = Tan; 6 = Brown; 7 = Pink; 8 = Red;  
 9 = Purplish-red; 10 = Purple; 11 = Dark purple-black; 12 = Other\_\_\_\_\_

V	5
---	---

R1	5
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**PREDOMINANT SKIN COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart  
 (Circle the appropriate color chart)

V	199C
---	------

R1	199C
----	------

R2	
----	--

R3	
----	--

R4	
----	--

**SECONDARY SKIN COLOR:**

1 = Absent; 2 = Present, please describe: \_\_\_\_\_

V	1
---	---

R1	1
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**SECONDARY SKIN COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart  
 (Circle the appropriate color)

V	
---	--

R1	
----	--

R2	
----	--

R3	
----	--

R4	
----	--

**SECONDARY SKIN COLOR DISTRIBUTION:**

1 = Eyes; 2 = Eyebrows; 3 = Splashed; 4 = Scattered; 5 = Spectacled; 6 = Stippled; 7 = Other\_\_\_\_\_

V	
---	--

R1	
----	--

R2	
----	--

R3	
----	--

R4	
----	--

**SKIN TEXTURE:**

1 = Smooth; 2 = Rough (flaky); 3 = Netted; 4 = Russetted; 5 = Heavily russetted; 6 = Other\_\_\_\_\_

V	2
---	---

R1	2
----	---

R2	
----	--

R3	
----	--

R4	
----	--

\*

**TUBER SHAPE:** (See figure 10)

1 = Compressed; 2 = Round; 3 = Oval; 4 = Oblong; 5 = Long; 6 = Other\_\_\_\_\_

V	2/3
---	-----

R1	2/4
----	-----

R2	
----	--

R3	
----	--

R4	
----	--

**TUBER THICKNESS:**

1 = Round; 2 = Medium thick; 3 = Slightly flattened; 4 = Flattened; 5 = Other\_\_\_\_\_

V	2
---	---

R1	3
----	---

R2	
----	--

R3	
----	--

R4	
----	--

**TUBER LENGTH (mm):****AVERAGE:**

V 63.10

R1 69.6

R2

R3

R4

**RANGE:**

V 50 to 81

R1 48 to 113

R2 to

R3 to

R4 to

**STANDARD DEVIATION:**

V 6.88

R1 9.9

R2

R3

R4

**AVERAGE WEIGHT OF SAMPLE TAKEN:**

V

R1

R2

R3

R4

**TUBER WIDTH (mm):****AVERAGE:**

V 56.4

R1 65.5

R2

R3

R4

**RANGE:**

V 45 to 68

R1 54 to 88

R2 to

R3 to

R4 to

**STANDARD DEVIATION:**

V 4.5

R1 7.2

R2

R3

R4

**AVERAGE WEIGHT OF SAMPLE TAKEN:**

V

R1

R2

R3

R4

**TUBER THICKNESS (mm):****AVERAGE:**

V 46.7

R1 54.5

R2

R3

R4

**RANGE:**

V 40 to 57

R1 42 to 73

R2 to

R3 to

R4 to

**STANDARD DEVIATION:**

V 3.9

R1 6.0

R2

R3

R4

**AVERAGE WEIGHT OF SAMPLE TAKEN:**

V

R1

R2

R3

R4

**TUBER EYE DEPTH:**

1 = Protruding; 2 = Shallow; 3 = Intermediate; 4 = Deep; 5 = Very deep

V 3

R1 3

R2

R3

R4

**TUBER LATERAL EYES**

1 = Protruding; 2 = Shallow; 3 = Intermediate; 4 = Deep; 5 = Very deep

V	2	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**NUMBER EYE / TUBER:****AVERAGE:**

V	15	R1	9	R2		R3		R4	
---	----	----	---	----	--	----	--	----	--

**RANGE:**

V	14 to 17	R1	8 to 11	R2	to	R3	to	R4	to
---	----------	----	---------	----	----	----	----	----	----

**DISTRIBUTION OF TUBER EYES:**

1 = Predominantly apical; 2 = Evenly distributed

V	2	R1	1	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**PROMINENCE OF TUBER EYEBROWS:**

1 = Not prominent; 2 = Slight prominence; 3 = Medium prominence; 4 = Very prominent; 5 = Other \_\_\_\_\_

V	3	R1	2	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

\* **PRIMARY TUBER FLESH COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart  
 (Circle the appropriate color chart)

*pale/light yellow*      *white*

V	160C	R1	158B	R2		R3		R4	
---	------	----	------	----	--	----	--	----	--

*per Correspondance Feb 22, 2007***SECONDARY TUBER FLESH COLOR:**

1 = Absent; 2 = Present, please describe: \_\_\_\_\_

*LMC 8-2.07*

V	1	R1	1	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**SECONDARY TUBER FLESH COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart  
 (Circle the appropriate color chart)

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**NUMBER OF TUBERS / PLANT:**

1 = Low (&lt;8); 2 = Medium (8 -15); 3 = High (&gt;15)

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**6. DISEASES CHARACTERISTICS:**

DISEASES REACTION: 0 = NOT TESTED; 1 = RESISTANT; 3 = MODERATELY RESISTANT;  
5 = MODERATELY SUSCEPTIBLE; 7=SUSCEPTIBLE; 9=HIGHLY SUSCEPTIBLE

**BACTERIAL RING ROT, FOLIAR REACTION:**

V	7	R1		R2		R3		R4	
---	---	----	--	----	--	----	--	----	--

**BACTERIAL RING ROT, TUBER REACTION:**

V	7	R1		R2		R3		R4	
---	---	----	--	----	--	----	--	----	--

**LATE BLIGHT:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**PLRV (LEAF ROLL):**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**PVX:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**PVY:**

V	5	R1		R2		R3		R4	
---	---	----	--	----	--	----	--	----	--

**OTHER:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**OTHER:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**7. PESTS CHARACTERISTICS:**

PEST REACTION: 0 = NOT TESTED; 1 = RESISTANT; 3 = MODERATELY RESISTANT;  
5 = MODERATELY SUSCEPTIBLE; 7=SUSCEPTIBLE; 9=HIGHLY SUSCEPTIBLE

**GOLDEN NEMATODE:**

V	1	R1	1	R2		R3		R4	
---	---	----	---	----	--	----	--	----	--

**OTHER:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

**8. GENE TRAITS:**

INSERTION OF GENES:

☐

YES

☒

NO

If YES, describe the gene(s) introduced or attach information:


**9. QUALITY CHARACTERISTICS:****CHIEF MARKET:**

Processing to make potato chips.

**SPECIFIC GRAVITY (wt. air /wt. air - wt. water)**

1 &lt; 1.060; 2 = 1.060-1.069; 3 = 1.070-1.079; 4 = 1.080-1.089; 5 &gt; 1.090

V 4

R1 4

R2

R3

R4

Specific gravity is variable according to location and year.

**TOTAL GLYCOALKALOID CONTENT (mg. / 100 g. fresh tuber)**

V 5.45

R1 9.9

R2

R3

R4

**OTHER QUALITY CHARACTERISTICS:** Describe any other quality characteristics that may aid in identification, (e.g. chip-processing, french fry processing, baking, boiling, after-cooking darkening). Please attach data and corresponding protocol.

**11. CHEMICAL IDENTIFICATION:**

Describe chemical traits of the candidate variety that aid in its identification (e.g. protein or DNA electrophoresis). Please attach data and the corresponding protocol.

See Exhibit D.

**12. ADDITIONAL COMMENTS AND CHARACTERISTICS:**

Include any additional descriptors that would be useful in distinguishing the candidate variety.

**EXHIBIT D. Additional Description of the Variety**

- 1) Isozyme fingerprint of FL 1930, with reference to methodology. Comparison of fingerprint with that of Atlantic, showing distinct patterns for each variety (Exhibit D-1).
- 2) Summary of 100-tuber sample of tuber dimensions of FL 1930 compared to 100 tubers of Atlantic.

EXHIBIT D-1

Isozyme electrophoresis fingerprints of FL 1930 compared to Atlantic.

Variety	Mdh-1	Mdh-2	Pgdh-3	Idh-1	Pgi-1	Aps-1	Got-1	Got-2	Pgm-1	Pgm-2	Dia-1	Prx-1	Prx-3	Adh-1
Atlantic	2223	2223	1122	1112	2222	1111	4444	3555	1112	2223	1112	1144	--	2222
FL 1930	2224	2222	1222	--	2222	--	3344	3355	1113	2223	--	--	1111	--

Source of Data: Dr. David Douches, Michigan State University, 1998

Procedures and allelic designations used are according to Douches, D.S. and K. Ludlam. 1991.  
Electrophoretic Characterization of North American Potato Cultivars. Am. Potato J. 68:767-780.

EXHIBIT D-1

## Plant Variety Protection

## FL 1930

Date: 4 October 00

## Tuber Measurements

Length (mm) Width (mm) Depth (mm)

74	61	51
66	61	50
81	64	57
73	60	51
79	57	51
66	57	51
69	61	51
77	67	56
74	64	51
69	57	51
69	56	50
79	64	51
66	57	45
69	62	51
66	64	52
64	57	50
71	61	51
79	61	51
62	56	45
66	57	45
64	57	45
62	58	46
75	61	44
70	58	50
74	57	45
75	61	51
68	52	46
66	54	41
63	55	41
75	57	48
58	49	40
60	64	43
60	61	42
57	56	45
64	52	45
60	57	45
57	52	45
60	58	46
50	45	42
58	54	45
56	57	45
59	57	51
60	56	45
64	64	47
60	57	51
64	57	43
64	57	51
59	59	45

## Length:

Mean	63.10	Max	81
STD	6.88	Min	50

## Width:

Mean	56.37	Max	68
STD	4.52	Min	45

## Depth:

Mean	46.69	Max	57
STD	3.92	Min	40



## Plant Variety Protection

FL 1930

Date: 4 October 00

## Tuber Measurements

Length (mm)	Width (mm)	Depth (mm)
67	55	43
59	58	50
63	53	50
59	57	44
56	51	43
67	57	46
60	51	49
60	53	47
60	62	51
60	50	52
63	59	45
60	54	43
58	61	45
64	54	51
60	47	41
59	57	46
60	57	45
56	49	43
58	58	49
69	61	52
59	57	54
68	58	43
66	68	56
56	53	43
60	54	51
60	45	41
75	54	44
59	51	42
60	57	45
60	47	43
59	54	42
58	52	42
50	54	44
54	56	47
59	52	43
56	53	45
60	53	43
58	61	46
53	51	43
55	53	44
59	51	43
52	52	43
60	54	42
53	51	44
54	56	47
59	54	42
64	58	47
77	64	51

200100164

**Plant Variety Protection**

**FL 1930**

Date: 4 October 00

***Tuber Measurements***

<i>Length (mm)</i>	<i>Width (mm)</i>	<i>Depth (mm)</i>
64	58	45
60	54	51
60	58	51
64	54	43

## Plant Variety Protection

## Atlantic

Date: 4 October 00

## Tuber Measurements

Length (mm)	Width (mm)	Depth (mm)
72	61	54
64	63	53
72	66	56
64	56	47
64	59	47
59	54	50
75	64	50
67	63	54
100	72	62
60	54	47
80	69	50
64	59	49
72	66	59
60	54	42
80	69	54
64	54	53
72	66	56
59	61	49
70	65	56
60	57	48
64	56	50
48	57	49
66	64	52
79	76	59
70	60	47
69	70	57
68	69	58
66	64	51
65	64	54
69	64	47
93	88	63
69	69	54
56	59	56
74	71	57
75	76	60
53	64	54
69	62	44
76	78	71
66	64	46
72	63	46
74	60	47
91	74	63
80	65	56
64	54	52
67	75	56
64	65	54
80	78	65
70	67	59

## Length:

Mean 69.6 Max 113

STD 9.9 Min 48

## Width:

Mean 65.5 Max 88

STD 7.2 Min 54

## Depth:

Mean 54.5 Max 73

STD 6 Min 42

## Plant Variety Protection

**Atlantic**

Date: 4 October 00

**Tuber Measurements**

Length (mm)	Width (mm)	Depth (mm)
82	72	62
70	67	42
64	62	54
72	73	59
98	73	63
67	66	59
67	67	63
60	61	54
70	62	51
85	84	58
70	75	54
80	80	62
60	67	49
72	72	59
80	68	62
64	59	54
67	62	50
113	80	73
80	84	60
75	72	59
68	56	50
67	62	56
76	64	54
64	65	56
70	61	48
64	64	49
75	63	58
64	67	61
67	66	54
60	65	54
72	65	54
70	69	61
70	65	54
70	67	51
64	64	50
75	73	56
82	70	55
75	76	73
64	59	63
60	57	50
72	60	56
79	69	56
60	61	54
64	72	56
60	54	49
60	60	54
54	58	48
64	60	50

**Plant Variety Protection*****Atlantic***

Date: 4 October 00

***Tuber Measurements***

<i>Length (mm)</i>	<i>Width (mm)</i>	<i>Depth (mm)</i>
60	54	51
54	65	54
64	56	47
64	70	62

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S)  Frito-Lay North America, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER  RD 78-91-5	3. VARIETY NAME  FL 1930
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)  7701 Legacy Drive Plano, Texas 75024	5. TELEPHONE (Include area code)  972-334-3822	6. FAX (Include area code)  972-334-5965
7. PVPO NUMBER  <b>#200100164</b>		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.

☒ YES ☐ NO10. Is the applicant the original owner? ☐ YES ☒ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☒ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

The original owner (the breeder) assigned his entire rights, pursuant to his obligations under his employment contract to Frito-Lay, Inc., which in turn, pursuant to contractual obligation, assigned its entire rights to Recot, Inc.

**PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5984 (voice and TDD). USDA is an equal opportunity provider and employer.

200100164

State of Delaware  
Secretary of State  
Division of Corporations  
Delivered 05:24 PM 01/15/2004  
FILED 05:24 PM 01/15/2004  
SRV 040033329 - 2202650 FILE

**STATE OF DELAWARE  
CERTIFICATE OF AMENDMENT  
OF CERTIFICATE OF INCORPORATION**

Recot, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware.

**DOES HEREBY CERTIFY:**

**FIRST:** The Board of Directors of Recot, Inc. has duly adopted a resolution setting forth a proposed amendment of the Certificate of Incorporation of said corporation, declaring said amendment to be advisable. The resolution setting forth the proposed amendment is as follows:

**RESOLVED,** that the Certificate of Incorporation of this corporation be amended by changing the Article thereof numbered "ARTICLE ONE" so that, as amended, said Article shall be and read as follows:

The name of the corporation is FRITO-LAY NORTH AMERICA, INC.

**SECOND:** That said amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

**THIRD:** That the capital of said corporation shall not be reduced under or by reason of said amendment.

**FOURTH:** That this name change shall be effective December 29, 2003, for accounting purposes only.

**FIFTH:** That the Principal Administrative Office for Frito-Lay North America, Inc. shall be located at 7701 Legacy Drive, Plano, Texas 75024.

**IN WITNESS WHEREOF,** said Recot, Inc. has caused this certificate to be signed by Kelly Mahon Tullier, an Authorized Officer, this 20th day of January, 2004.

By: 

Authorized Officer

Title: Vice President and Treasurer  
Name: Kelly Mahon Tullier

**EXHIBIT E. Statement of the Applicant's Ownership**

The variety FL 1930, for which Plant Variety Protection is hereby sought, was developed by breeders employed by Frito-Lay, Inc. By agreement between Frito-Lay and its employees, all rights to inventions and discoveries made by the employees while employed by Frito-Lay are assigned to Frito-Lay, Inc., with no ownership rights of any kind retained by employees.



According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705**

**EXHIBIT F  
DECLARATION REGARDING DEPOSIT**

NAME OF OWNER (S) Frito Lay North America, Inc.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 7701 Legacy Dr Plano, TX 75024	TEMPORARY OR EXPERIMENTAL DESIGNATION 1993 111.3
NAME OF OWNER REPRESENTATIVE (S) Robert W. Hoopes	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 7701 Legacy Dr Plano, TX 75024	VARIETY NAME FL 1930 FOR OFFICIAL USE ONLY PVPO NUMBER #200100164

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Robert W. Hoopes  
Signature

12/18/06  
Date